What is claimed is:

1. In an apparatus for detecting at least one of a presence of a wildfire and an electrical arc located remotely therefrom, said wildfire and electrical arc being characterized by emission of ultraviolet (UV) radiation at a given wavelength, a method comprising:

providing a Geiger-Mueller tube (GM tube) having a given response at a maximum rated bias voltage when exposed to said given wavelength, as well as when concurrently exposed to a plurality of extraneous noise sources, for use in generating a pulse output;

operating said GM tube in a way which produces a modified response of the GM tube, thereby increasing sensitivity of the GM tube over said given response with respect to said given wavelength, as well as with respect to the plurality of extraneous noise sources, so as to increase a relative number of pulses in the pulse output responsive to the given wavelength and responsive to the extraneous noise sources, as compared to operating said GM tube at the maximum rated bias voltage;

generating an intermediate output responsive to said pulse output in a way which tracks a trend in the pulse output, which trend is generally responsive to the presence of at least one of said wildfire and electrical arc, irrespective of the increase in the relative number of pulses in the pulse output that are responsive to said extraneous sources; and

producing an alarm signal based on a predetermined characteristic of said intermediate output.

2. The method of Claim 1 wherein said operating said GM tube includes applying an operating bias voltage which is greater than said maximum rated bias voltage.

3. The method of Claim 1 wherein said predetermined characteristic is a threshold value of the intermediate output and producing said alarm signal includes detecting a condition of said intermediate output which exceeds said threshold value.

4. The method of Claim 1 wherein said intermediate output is generated responsive to pulses occurring within an event window that continuously terminates at present time and extends backward therefrom by a selected time duration.

5. The method of Claim 1 further comprising treating said GM tube in a way which reduces sensitivity of the GM tube to at least certain ones of said plurality of extraneous noise sources.

6. The method of Claim 5 wherein said treating said GM tube includes configuring said GM tube to exhibit a response peak from 230 to 280 nm.

7. The method of Claim 5 wherein said treating includes coating at least said tube with an antistatic material that is transmissive with respect to said given wavelength.

8. The method of Claim 5 wherein said treating includes

applying a pre-conditioning voltage to said GM tube, said pre-conditioning voltage being higher than said maximum rated bias voltage and

during application of said pre-conditioning voltage, exposing said GM tube to at least certain light generating ones of said plurality of extraneous noise sources.

9. The method of Claim 8 wherein exposing said GM tube includes subjecting said GM tube to sunlight during application of said pre-conditioning voltage.

10. An apparatus for detecting at least one of a presence of a wildfire and an electrical arc located remotely therefrom, said wildfire and electrical arc being characterized by emission of ultraviolet (UV) radiation at a given wavelength, said apparatus comprising:

a Geiger-Mueller tube (GM tube), which GM tube exhibits a given response at a maximum rated bias voltage when exposed to said given wavelength as well as when concurrently exposed to a plurality of extraneous noise sources for use in generating a pulse output;

a driver for operating said GM tube in a way which produces a modified response of the GM tube, thereby increasing sensitivity of the GM tube over said given response with respect to said given wavelength as well as with respect to the plurality of extraneous noise sources so as to increase a relative number of pulses in the pulse output responsive to the given wavelength and responsive to the extraneous noise sources, as compared to operating said GM tube at the maximum rated bias voltage;

a processing circuit for generating an intermediate output responsive to said pulse output in a way which tracks a trend in the pulse output, which trend is generally responsive to the presence of at least one of said wildfire and electrical arc, irrespective of the increase in the increase in the relative number of pulses in the pulse output that are responsive to said extraneous sources; and

an alarm apparatus for producing an alarm signal based on a predetermined characteristic of said intermediate output.

11. In an apparatus for detecting at least one of a presence of a wildfire and an electrical arc located remotely therefrom, said wildfire and electrical arc being characterized by emission of ultraviolet (UV) radiation at a given wavelength, a method comprising:

providing a light sensor having a pulse output responsive to said given wavelength;

generating an intermediate output responsive to said pulse output in a way which tracks a trend in the pulse output, which trend is generally responsive to the presence of at least one of said wildfire and electrical arc, irrespective of any increase in relative number of pulses in the pulse output that is responsive to extraneous sources, said intermediate output being generated responsive to pulses occurring within an event window that continuously terminates at present time and extends backward therefrom by a selected time duration; and

producing an alarm signal based on a predetermined characteristic of said intermediate output.

12. The method of Claim 11 wherein said predetermined characteristic is a threshold value of the intermediate output and producing said alarm signal includes detecting a condition of said intermediate output which exceeds said threshold value.

13. A sensor for use in an apparatus for detecting a presence of at least one of a wildfire and an electrical arc located remotely therefrom, which wildfire and electrical arc are characterized by emission of ultraviolet (UV) radiation

at a given wavelength, said sensor comprising:

a photo-electric avalanche tube (GM tube) including a light transmissive enclosure and a detecting arrangement disposed therein to provide a given wavelength response at a given bias voltage when exposed to said UV radiation of said given wavelength and also providing a noise response when exposed to a plurality of extraneous noise sources; and

a material applied to said enclosure in a way which limits the noise response with respect to at least certain ones of said plurality of extraneous noise sources while maintaining, at least approximately, the given wavelength response to said UV radiation of said given wavelength.

14. The sensor of Claim 13 wherein said material is an anti-static coating.

15. The sensor of Claim 13 wherein said certain ones of said plurality of extraneous noises includes wind generated static electricity.

16. An apparatus for detecting a presence of at least one of a wildfire and an electrical arc located remotely therefrom, said wildfire and electrical arc being characterized by emission of ultraviolet (UV) radiation at a given wavelength, said apparatus comprising:

a UV sensor responsive to UV radiation at said given wavelength and being configured to produce a response when said UV radiation of said given wavelength is incident thereon; and

an integrator section configured for receiving said response and integrating said response over time in a particular way so as to produce an alarm signal when said response reaches a predetermined threshold value.

17. The apparatus of Claim 16 wherein said integrator integrates said response over time in said particular way by generating an intermediate output in response to said response occurring within an event window that continuously terminates at present time and extends backward therefrom by a selected time duration, and wherein said integrator produces said alarm signal based on a predetermined characteristic of said intermediate output.

18. The apparatus of Claim 17 further comprising an alarm arrangement for generating at least one of a visual alarm and an audible alarm responsive to said alarm signal.

19. The apparatus of Claim 16 wherein said given wavelength is in a UVC wavelength range.

20. The apparatus of Claim 16 wherein said UV sensor and said integrator section are configured to cooperate with each other such that said detector detects presence of wildfire at distances greater than fifty meters.

21. The apparatus of Claim 16 wherein said UV sensor and said integrator section are configured to cooperate with each other such that said detector detects presence of wildfire at distances up to two kilometers.

22. The apparatus of Claim 16 wherein said integrator section integrates said response over time in said particular way using exponentially decaying time integration of said response.

23. The apparatus of Claim 16 wherein said UV sensor is selected to be responsive to said UV radiation at said given wavelength while being substantially non-responsive to terrestrial solar wavelengths other than said given wavelength.

24. The apparatus of Claim 16 wherein said apparatus is configured to be mounted on a portion of a structure having a thickness extending between an exterior surface and an interior surface, and wherein said apparatus includes

a first, exterior arrangement configured for removable attachment to the exterior surface of said portion of said structure , said first, exterior arrangement including at least said UV sensor,

a second, interior arrangement configured for removable attachment to the interior surface of said structural member, said second, interior arrangement including at least said integrator section, and

a communication configuration forming part of the first, exterior arrangement and forming part of the second, interior arrangement at least for transmitting the response from said UV sensor in said first, exterior arrangement to said integrator section in said second, interior arrangement for use thereby through said portion of said structure.

25. The apparatus of Claim 24 wherein said communication configuration includes wire coupling.

26. The apparatus of Claim 24 wherein said portion of said structure is optically transmissive, and wherein said communication configuration includes an optical coupling arrangement for transmitting said response from said UV sensor to said integrator through said portion of said structure.

27. The apparatus of Claim 26 wherein said portion of said structure is at least one glass pane.

28. The apparatus of Claim 16 wherein said apparatus is configured to be mounted on a portion of a structure having a thickness extending between an exterior surface and an interior surface, and wherein said apparatus includes

a first, exterior arrangement configured for removable attachment to the exterior surface of said portion of said structure , said first, exterior arrangement including at least said UV sensor,

a second, interior arrangement configured for removable attachment to the interior surface of said structural member and for receiving the alarm signal, and

a communication configuration forming part of the first, exterior arrangement and forming part of the second, interior arrangement at least for transmitting the alarm signal from said first, exterior arrangement to said second, interior arrangement for use thereby through said portion of said structure.

29. The apparatus of Claim 28 wherein said portion of said structure is optically transmissive, and wherein said communication configuration includes an optical coupling arrangement for transmitting said response from said UV sensor to said integrator through said portion of said structure.

30. The apparatus of Claim 29 wherein said portion of said structure is a glass pane.

31. The apparatus of Claim 28 further comprising an alarm arrangement forming part of said second, interior arrangement for generating at least one of a visual alarm and an audible alarm responsive to said alarm signal.

32. An apparatus for detecting a presence of at least one of a wildfire and an electrical arc located remotely from a portion of a structure having a thickness extending between an exterior surface and an interior surface, and said wildfire and electrical arc being characterized by emission of ultraviolet (UV) radiation at a given wavelength, said apparatus comprising:

a first, exterior arrangement configured for removable attachment to the exterior surface of said portion of said structure , said first, exterior arrangement including at least a UV sensor for producing a response when said UV radiation at said given wavelength is incident thereon;

a second, interior arrangement configured for removable attachment to the interior surface of said structural member; and

a communication configuration forming part of the first, exterior arrangement and forming part of the second, interior arrangement at least for transmitting the response from said UV sensor to said second, interior arrangement for use thereby through said portion of said structure.

33. The apparatus of Claim 32 wherein said portion of said structure is optically transmissive, and wherein said communication configuration includes an optical coupling arrangement for transmitting said response from said first, exterior arrangement to said second, interior arrangement for use thereby through said portion of said structure.

34. An apparatus for detecting a presence of at least one of a wildfire and an electrical arc located remotely from a structure, said wildfire and electrical arc being characterized by emission of an ultraviolet (UV) radiation of a given wavelength, said apparatus comprising:

a sensor for producing a response when said UV radiation of said given wavelength is incident thereon; and

a discriminator circuit for receiving said response and integrating said response using exponentially decaying time integration so as to produce an alarm signal when said response reaches a predetermined threshold value.

35. The apparatus of Claim 34 further comprising an alarm generator for generating at least one of a visual alarm and an audible alarm responsive to said alarm signal, and wherein said alarm arrangement includes an enhancement mode MOSFET having source and drain terminals that are electrically connected to actuate said alarm generator, said MOSFET including a gate terminal that is driven by said alarm signal such that a quiescent source to drain current of the MOSFET is approximately zero when said audible alarm generator is not actuated.

36. A method for detecting a presence of at least one of a wildfire and an electrical arc located remotely from said detector, said wildfire and electrical arc being characterized by emission of ultraviolet (UV) radiation at a given wavelength, said method comprising:

providing a UV sensor having a predetermined wavelength response;

treating the UV sensor to adjust the predetermined wavelength response of the UV sensor such that said UV sensor is responsive to UV radiation of said given wavelength while being substantially non-responsive to solar light wavelengths other than said given wavelength so as to produce a response when said UV radiation of said given wavelength is incident on said UV sensor; and

integrating said response over time by exponentially decaying time integration so as to produce an alarm signal when said response reaches a predetermined threshold value.

37. The method of Claim 36 wherein said treating the UV sensor includes photo-annealing said UV sensor.

38. The method of Claim 37 wherein said UV sensor includes a recommended maximum operating voltage, and wherein said photo-annealing includes biasing said UV sensor at a voltage above said recommended operating voltage and, simultaneously, exposing said UV sensor to light having a wavelength range outside of said given wavelength such that said UV sensor becomes more insensitive to said light of said wavelength range than before said photo-annealing is performed on said UV sensor.

39. The method of Claim 37 wherein said UV sensor includes a recommended operating voltage, and wherein said photo-annealing includes biasing said UV sensor at a voltage above said recommended operating voltage and, simultaneously, exposing said UV sensor to sunlight such that said UV sensor becomes substantially insensitive to sunlight.

40. A method for modifying a responsivity characteristic of a radiation sensor, said radiation sensor having a maximum rated bias voltage and initially exhibiting a given wavelength response that varies over a range of tolerance, said method comprising:

applying a pre-conditioning voltage to said radiation sensor, said pre-conditioning voltage being higher than said maximum rated bias voltage; and

simultaneously with said application of said pre-conditioning voltage, exposing said radiation sensor to light of a given wavelength range such that said radiation sensor becomes substantially insensitive to light of said given wavelength range.

41. An apparatus for detecting a presence of wildfire located remotely from a structure, said wildfire being characterized by emission of an ultraviolet (UV) radiation of a given wavelength, said apparatus comprising:

a UV sensor sensitive to UV radiation of said given wavelength for producing a response when said UV radiation of said given wavelength is incident thereon, said UV sensor being sensitive to UV radiation of said given wavelength while being substantially insensitive to solar wavelengths; and

an integrating circuit for receiving said response and integrating said response using exponentially decaying time integration so as to produce an alarm signal when said response reaches a predetermined threshold value.

42. A method for detecting a presence of at least one of a wildfire and an electrical arc burning proximate to Earth's surface, said method comprising:

selecting a detection wavelength that is emitted by wildfire and electrical arc and which transmits in a first way at the Earth's surface as a result of a first ratio of oxygen compounds proximate to the surface of Earth, but which detection wavelength transmits in a second way in Earth's stratosphere based on a second, different ratio of oxygen compounds present in Earth's stratosphere;

using a detection arrangement positioned such that the detection wavelength travels from said wildfire to the detection arrangement in the presence of said first ratio of said oxygen compounds and so that sunlight arriving at said detection arrangement travels through Earth's stratosphere so as to subject the sunlight to said second ratio of oxygen compounds in a way which attenuates content of the detection wavelength, in sunlight; and

configuring said detection arrangement to respond at the detection wavelength so as to enhance a detection

response to the wildfire while attenuating the response to the detection wavelength to sunlight based on said first and second ratios of said oxygen compounds.

43. The method of Claim 42 wherein configuring said detection arrangement includes providing an antistatic coating on said detection arrangement.

44. The method of Claim 42 wherein said detection arrangement exhibits a given response at a maximum rated bias voltage when exposed to said detection wavelength, and wherein configuring said detection arrangement includes applying an operating bias voltage which is higher than said maximum rated bias voltage.

45. The method of Claim 42 further comprising generating an intermediate output responsive to said detection response in a way which tracks a trend in the detection response.

46. The method of Claim 45 wherein said intermediate output is generated responsive to said detection responses occurring within an event window that continuously terminates at present time and extends backward therefrom by a selected time duration.

47. An apparatus for detecting a presence of at least one of a wildfire and an electrical arc burning proximate to Earth's surface, said wildfire and electrical arc being characterized by a wavelength that is emitted by wildfire and electrical arc and which transmits in a first way at the Earth's surface as a result of a first ratio of oxygen compounds proximate to the surface of the Earth, but which wavelength transmits in a second way in Earth's stratosphere based on a second, different ratio of oxygen compounds present in Earth's stratosphere, said apparatus comprising:

a detection arrangement disposed such that said wavelength travels from said wildfire to the detection arrangement in the presence of said first ratio of said oxygen compounds and so that sunlight arriving at said detection arrangement travels through Earth's stratosphere so as to subject the sunlight to said second ratio of oxygen compounds in a way which attenuates content of the detection wavelength, in sunlight, said detection arrangement being configured to respond at the wavelength so as to enhance a detection response to the wildfire while attenuating the detection response to the wavelength to sunlight based on said first and second ratios of said oxygen compounds.